

PATENTS
Attorney Docket No. FOM-139.01
02,520

REMARKS

Applicants thank the Examiner for examining the application, and for indicating that the subject matter of claim 20 is allowable if rewritten in independent form. Applicants have added to the specification a new paragraph replacing former paragraph [0002], which now includes the application serial numbers for the co-pending applications originally identified only by their Attorney Docket numbers. Applicants have also corrected the typographical error pointed out by the Examiner in paragraph [0023]. Applicants have amended claims 1, 9, 11-12, 23, 25-26, and 28, and cancelled claim 8. No new matter has been added by these amendments.

Information Disclosure Statement

Applicants present herewith a concise explanation of the relevance of cited reference FR2763682:

The invention concerns a device for measuring liquid level in a tank comprising a probe and a processing circuit connected to the probe to supply a signal representing the liquid level in the tank. The probe comprises a transmitter antenna and a receiver antenna, the immersion of the two antennae being a function of the liquid level. The processing circuit comprises a generator of electric signals and means to convert the amplitude of the electric signals received by the receiver antenna into a signal representing the liquid level in the tank.

PATENTS
Attorney Docket No. FOM-139.01
02,520

Claim Rejection - 35 U.S.C. § 102(b)

The Examiner rejected claims 1, 2-4, 6-9, 15, 23-25, and 27 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,910,188 to Resnick.

Applicants' amended independent claim 1 requires, among other things, a transmitter operable to drive a first electromagnetic signal along the first conductive element without also driving the second conductive element, while a receiver monitors for signals that result from dielectric-constant discontinuity. By thus refraining from driving the second conductive element, Applicants avoid interference (e.g., ringing, saturation, etc.) that would result from the receiver's monitoring a conductor driven directly by the transmitter. Avoiding this interference increases the detection and measurement capabilities of the receiver in embodiments of the current invention. Resnick discloses that the control circuitry 18 transmits a pulsed signal to the probe assembly 16; *see* col. 2 lines 31-33. The probe assembly 16 includes sensor means 24 that comprise a first conductor 26 and a second conductor 28, which act as a transmission line to transmit a pulse of electromagnetic radiation along the conductors 26 and 28; *see* col. 2 lines 57-67. Thus, it may logically be inferred that Resnick's the control circuitry 18 drives both its first conductive element, first conductor 26, and its second conductive element, second conductor 28. This differs from a transmitter operable to drive the first electromagnetic signal along the first conductive element without also driving the element that the receiver monitors, as required by Applicants' independent claim 1, which Resnick does not teach or suggest. Thus, Resnick does not anticipate Applicants' independent claim 1.

PATENTS
Attorney Docket No. FOM-139.01
02,520

Applicants' independent claim 23 contains elements similar to those of Applicants' independent claim 1. Therefore, for the reasons given above, Applicants' independent claim 23 is not anticipated by Resnick.

Applicants' dependent claims 2-4, 6-9, and 15 depend from independent claim 1; Applicants' dependent claims 24-25 and 27 depend from independent claim 23. Therefore, these dependent claims are also allowable, as they depend from allowable base claims 1 and 23.

Claim Rejection - 35 U.S.C. § 103(a)

The Examiner rejected dependent claims 5, 10-13, and 26 under 35 U.S.C. § 103(a) as being unpatentable over Resnick in view of U.S. Patent No. 6,801,157 to Haynes. The Examiner then rejected dependent claims 14, 16-19, and 28 under 35 U.S.C. § 103(a) as being unpatentable over Resnick in view of U.S. Patent No. 6,137,282 to Macke, Sr. et al. The Examiner next rejected dependent claims 21, 22, and 29 under 35 U.S.C. § 103(a) as being unpatentable over Resnick in view of Macke, Sr. et al. as applied to claims 18 and 28, and further in view of U.S. Patent No. 6,229,476 to Lutke et al. Dependent claims 5, 10-14, and 16-19 depend from independent claim 1, while dependent claims 21-22, 26, and 28-29 depend from independent claim 23. Thus, in the rejection, the Examiner repeats verbatim the initial rejection of claims 1 and 23 by Resnick under 35 U.S.C. § 102(b). As discussed above, Resnick does not disclose, and thus does not teach or suggest, all the elements of Applicants' independent claims 1 and 23. Further, none of the other cited references (Haynes, Macke, Sr. et al., and Lutke et al.) teach or suggest a transmitter operable to drive

PATENTS
Attorney Docket No. FOM-139.01
02,520

the first electromagnetic signal along the first conductive element without also driving the second conductive element, as required by Applicants' independent claims 1 and 23. Thus, because dependent claims 5, 10-14, and 16-19 depend from allowable independent claim 1, and dependent claims 21-22, 26, and 28-29 depend from allowable independent claim 23, these dependent claims also allowable.

CONCLUSION

Applicant believes this Amendment and Response to be fully responsive to the present Office Action. Thus, based on the foregoing Remarks, Applicant respectfully submits that this application is in condition for allowance. Accordingly, Applicant requests allowance of the application.

Applicants invite the Examiner to contact the Applicants' undersigned Attorney if any issues are deemed to remain prior to allowance.

Respectfully submitted,

Date: April 11, 2005
Customer No: 25181
Patent Group
Foley Hoag, LLP
155 Seaport Blvd.
Boston, MA 02210-2600



Shaun P. Montana, Reg. No. 54,320
Attorney for Applicants
Tel. No. (617) 832-1245
Fax. No. (617) 832-7000